1965

FOREST PEST CONDITIONS ON THE UINTA NATIONAL FOREST, 1965

The following is an account of the most important forest pest problems encountered on the Uinta National Forest in 1965. Part of this information was compiled from aerial survey data and part was the result of limited ground examinations to supplement the aerial findings. No special evaluation surveys were made.

The major forest pest problems were diseased aspen, mortality of true firs by the fir engraver beetle and other factors, and the mountain pine beetle. Briefly, a pathogenic complex has caused rather spectacular and extensive defoliation, branch killing and tree mortality of aspen with the course of the infections undecided. Widespread killing of true fir by the fir engraver beetle and unknown physiological factors has occurred in many areas with no change in the trend of damage expected next season. The mountain pine beetle continues to decline with even less activity forecast for 1966. A more detailed discussion of these problems follow:

Diseased and Dying Aspen

Aerial surveys reported more than 270,000 acres of diseased aspen on the forest this year. Severe infections and widespread damage were most prevalent in the northeast portion of the forest (see map). The most extensive disease was a leaf spot, possibly Marssonia populi. Associated with the leaf spot was rather extensive branch and tree killing by one or more branch and stem cankers. Although the species of canker responsible for this widespread damage have not been positively determined, they are thought to be Cenangium sp. and/or Cytospora sp. The presence of these pathogens, particularly the leaf discoloration caused by Marssonia sp., masked all evidence of possible insect defoliation. The future trend of these pathogens and their impact on aspen stands has not been determined. We are certain that the present increase trend of damage is due to and favored by periods of high moisture such as occurred the last two years. Excessive moisture, particularly during the growing season, predisposes trees to attack by fungi, and creates optimum conditions for spore production, dissemination and germination. One or more years of relatively dry conditions could change or reverse this trend.

Mountain pine beetle, Dendroctonus ponderosae (monticola)

Very little mountain pine beetle activity in lodgepole pine was visible from the air. The 1963 mountain pine beetle outbreak in Current Creek has completely subsided. The only new infestation reported this year amounted to 30 "red tops" scattered throughout one small side drainage south of Pass Creek (see map). The estimated ratio of old kill to new was 1:1. An attempt will be made to reevaluate this area next year.

Fir engraver beetle, Scolytus ventralis

The fir engraver beetle together with an unknown physiological factor

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continues to deplete many of the true fir stands on the forest, a condition which was quite noticeable during the aerial surveys. Because of the extensiveness of the problem, inaccessibility of most of the affected areas, and lack of manpower and time, no ground examinations were made. Subalpine and white fir were the tree species affected, with subalpine fir suffering the heaviest damage. Dead white firs, in other portions of the region, were presumed to have been killed by the fir engraver beetle. However, upon examination they were found to have died of other causes. As yet, attempts to associate much of this mortality with a pathogen have been unsuccessful. Lacking additional information, we can only speculate that the mortality might be physiological in nature, with a possible contributing factor being excessive moisture. The major affected areas and an estimate of the number of fir killed by all factors as determined by aerial surveys, follows:

AREA	NUMBER TREES KILLED
Hohman	300-400
Beaver Dam Creek	200-300
Little South Fork	150
Camp Hollow	600-800
Buck Hollow	600-800
Bear Hollow	600-800
South Fork Provo River	125-150
Baker Fork	200-300
First Drainage South of Baker Fork	300-400
Second Drainage South of Baker Fork	150-200

The proportion of the number of trees killed by the engraver beetle to the number of trees killed by other factors is unknown. No difference in foliage discoloration or rate of fading was discernible from the air.